IN THE CLAIMS

Please substitute the attached claim 25 for claim 25 submitted in applicants amendment filed in the Patent Office on December 2, 2003.

CLAIMS

1-20 (Canceled)

21. (Withdrawn) The structure according to claim 20, characterized in that the stack further includes a bonding layer located between the stress adaptation layers or between one of the stress adaptation layers and a matching main layer.

22 (Withdrawn) The structure according to claim 20, having a suspended membrane, the suspended membrane (244) including at least a portion of one of the first and second main layers, released from the second main layer, from the first main layer, respectively.

23 (Withdrawn) The structure according to claim 22, wherein the suspended membrane (244) further comprises at least one superconducting material layer (248) covering said portion of one of the first and second main layers.

24. (Canceled)

25. (Previously Added and Currently Amended) Method for producing a multilayer structure having a defined geometrical orientation from at least a first main layer and a second main layer comprising the steps of:

(a) providing the first main layer with a first stress adaptation layer and providing at least a second stress adaptation layer between the first stress adaptation layer and the second main layer;

(b) wherein said first and second main layer is assembled via the stress adaptation layers such that stress is exerted on said main layers to cause the multilayer structure to assume a predetermined geometrical orientation selecting from the goup consisting of: ~~convex or~~ convex, flat or concave geometry based upon the thickness, number and adherence of the adaptation layers.

26. (New) The method according to claim 25, further comprising the step of forming an adherence bond between said first and second main layer.

27. (New) The method according to claim 25, wherein the first adaptation layer is formed from a main layer and the second adaptation layer is formed from a main layer or from the first adaptation layer with each adaptation layer having a thickness to cause stress in the first and second main layers resulting in deformation in opposite directions, respectively.

28. (New) The method according to claim 25, further comprising forming molecular bonding between layers.

29. (New) The method according to claim 28, wherein said molecular bonding is performed for adjusting the surface condition of the molecular layers.

30. (New) The method according to claim 28, wherein during step b), the molecular bonding is performed at room temperature.

31. (New) The method according to claim 26, wherein said adherence bond is formed using a bonding technique selected from the group consisting of: brazing, welding, interdiffusion between layers, and bonding with an adhesive substance.

32. (New) The method according to claim 25, further comprising interposing an additional adhesion layer between said main layers.

33. (New) The method according to claim 25, wherein during step a), the first stress adaptation layer (130, 220) is formed on the first main layer (110a, 210a) and the second stress adaptation layer (120, 230) is formed on the second main layer (110b, 210b), and wherein during step b), molecular bonding is performed between the stress adaptation layers.

34. (New) The method according to claim 25, wherein the first and second stress adaptation layers are formed on the first main layer and wherein the second main layer is boned to one of the first and second stress adaptation layers.

35. (New) The method according to claim 25, further comprising the step of treating at least one of the main layers after assembly to cause thinning.

36. (New) The method according to claim 35, wherein said thinning of a main layer is formed from fracturing of said layer to form a fracture area.

37. (New) The method according to claim 36, further comprising the step of implanting a gas species in at least one of the first or second main layers to induce a

fracture area (112, 212) therein, and wherein the treating step is a thermal and/or mechanical treatment.

38. (New) The method according to claim 25, wherein at least one stress adaptation layer is formed by a method selected from the group consisting of: spry, epitaxy, chemical deposition, chemical vapor deposition, low pressure vapor deposition and plasma vapor deposition.

39. (New) The method according to claim 25, wherein at least one stress adaptation layer is obtained by surface oxidization of a main layer.

40. (New) The method according to claim 25, wherein at least one stress adaptation layer is obtained by implanting species in a main layer.

41. (New) The method according to claim 25, wherein the main layers are composed of at least one material selected from silicon, germanium, silicon carbide, III-V type semiconductors, II-VI semiconductors, glass, superconductors, diamond, ceramic materials ($LiNbO_3$, $LiTaO_3$), and quartz.